

**Class XII**

**Computer Science (083)**

**Marking Scheme**

**Time Allowed: 3 hours**

**MM: 70**

<b><u>Ques No</u></b>	<b>Question and Answers</b>	<b>Distribution of Marks</b>	<b>Total Marks</b>
<b><u>SECTION A</u></b>			
1	True	1 mark for correct answer	1
2	Option d delete	1 mark for correct answer	1
3	Option b 18	1 mark for correct answer	1
4	Option d (‘BHASA’, ‘’, ‘SANGAM@75’)	1 mark for correct answer	1
5	Option b 15,50	1 mark for correct answer	1
6	Option a PAN	1 mark for correct answer	1
7	Option a r g b	1 mark for correct answer	1
8	Option b 2@tr	1 mark for correct answer	1

9	Option b Statement 4	1 mark for correct answer	1
10	Option b Wait#Stop#	1 mark for correct answer	1
11	Option b SMTP	1 mark for correct answer	1
12	Option a 21 7	1 mark for correct answer	1
13	True	1 mark for correct answer	1
14	Option b It is case sensitive	1 mark for correct answer	1
15	Packet	1 mark for correct answer	1
16	Option c seek ( )	1 mark for correct answer	1
17	Option a Both A and R are true but R is the correct explanation for A	1 mark for correct answer	1

18	<p>Option a</p> <p>Both A and R are true but R is the correct explanation for A</p>	1 mark for correct answer	1
<b><u>SECTION B</u></b>			
19	<p>(i)</p> <p>SMTP – Simple Mail Transfer Protocol</p> <p>IMAP – Internet Message Access Protocol</p> <p>(ii)</p> <p>Active hubs amplify the incoming electric signal, whereas passive hubs do not amplify the electric signal. (Any other valid difference may be considered)</p> <p style="text-align: center;"><b>OR</b></p> <p>(i) A network protocol is an established set of rules that determine how data is transmitted between different devices in the same network.</p> <p>(ii) Hub is an electronic device that connects several nodes to form a network and redirect the received information to all the nodes in a broadcast mode. Whereas Switch is an intelligent device that connects several nodes to form a network and redirect the received information only to the intended node(s).</p> <p>(Any other valid difference may be considered)</p>	<p>½ mark for each correct expansion</p> <p>1 mark for any one correct difference</p> <p>1 mark for correct definition</p> <p>1 mark for any one correct difference</p>	1+1=2
20	<pre>def table ():     n=int (<u>input</u> ("Enter number which table U need: "))     for i in <u>range</u> (1,11):         print ("able of Enter no=",i*<u>n</u>) <u>table</u> ()</pre>	½ mark for each correction made	2

21	<p>SUBJECT={1:"Hindi",2:"Physics",3:"Chemistry",4:"CS",5:"MATH"}</p> <pre>def countMy (SUBJECT):     for S in SUBJECT.values():         if len(S)&gt;5:             print(S.upper()) countMy()</pre> <p style="text-align: center;">OR</p> <pre>def lenLines (STRING):     t=()     L=STRING.split()     for line in L:         length=len(line)         t=t+(length,)     return t</pre> <p style="text-align: center;">Note: Any other correct logic may be marked</p>	<p>½ mark for correct function header</p> <p>½ mark for correct loop</p> <p>½ mark for correct if statement</p> <p>½ mark for displaying the output</p> <p>½ mark for correct function header</p> <p>½ mark for using split()</p> <p>½ mark for adding to tuple</p> <p>½ mark for return statement</p>	2
22	(22, 44, 66)	<p>1½ mark for each correct digit</p> <p>½ mark for parenthesis</p>	2

23	<p>(i) L1.insert(1,100)</p> <p>(ii) S1.isdigit()</p> <p style="text-align: center;">OR</p> <p>pop() function removes the lastvalue and returns the same.</p> <pre>&gt;&gt;&gt;L=[10,20,30,20] &gt;&gt;&gt; L.pop () 20</pre> <p>The <i>remove()</i> method removes thefirst matching value from the list.</p> <pre>&gt;&gt;&gt;L.remove (20) [10, 30, 20]</pre>	<p>1 mark for each correct statement</p> <p>1 mark for correct difference and 1 mark for suitable example</p>	1+1=2
24	<p>SQL Command to add primary key:</p> <pre>select * from student where fee IS NULL</pre> <p style="text-align: center;"><b>OR</b></p> <p>DDL : CREATE, ALTER DROP</p> <p>DML: INSERT UPDATE DELETE</p>	<p>2 mark for correct Command</p> <p>1 mark for each correct DDL &amp; DML Categorized commands</p>	2
25	<p>-22 # 756 # -9 # 230 #</p>	<p>½ mark for each correct number and ½ mark for each correct # symbol</p>	2
<b><u>SECTION C</u></b>			
26	<p>['DelhiDelhi', 'JaipurJaipur', 'AgraAgra', 'SuratSurat', 'MumbaiMumbai', 'BhopalBhopal']</p>	<p>½ mark for each correct output</p>	3

27	<table border="1" data-bbox="243 210 1180 468"> <thead> <tr> <th data-bbox="243 210 488 285">(a) <u>Item Name</u></th> <th data-bbox="488 210 716 285">(b) <u>Dateofstock</u></th> <th data-bbox="716 210 899 285">(c) <u>Type</u></th> <th data-bbox="899 210 1180 285"><u>Sum(Price)</u></th> </tr> </thead> <tbody> <tr> <td data-bbox="243 285 488 321">White lotus</td> <td data-bbox="488 285 716 321">13/12/2001</td> <td data-bbox="716 285 899 321">Double Bed</td> <td data-bbox="899 285 1180 321">80000</td> </tr> <tr> <td data-bbox="243 321 488 357">Comfort Zone</td> <td data-bbox="488 321 716 357">22/02/2002</td> <td data-bbox="716 321 899 357">Baby Cot</td> <td data-bbox="899 321 1180 357">30500</td> </tr> <tr> <td data-bbox="243 357 488 392">Wood Comfort</td> <td data-bbox="488 357 716 392">20/02/2003</td> <td data-bbox="716 357 899 392">Office Table</td> <td data-bbox="899 357 1180 392">43000</td> </tr> <tr> <td></td> <td></td> <td data-bbox="716 392 899 428">Sofa</td> <td data-bbox="899 392 1180 428">57500</td> </tr> <tr> <td></td> <td></td> <td data-bbox="716 428 899 464">Dining Table</td> <td data-bbox="899 428 1180 464">11500</td> </tr> </tbody> </table>	(a) <u>Item Name</u>	(b) <u>Dateofstock</u>	(c) <u>Type</u>	<u>Sum(Price)</u>	White lotus	13/12/2001	Double Bed	80000	Comfort Zone	22/02/2002	Baby Cot	30500	Wood Comfort	20/02/2003	Office Table	43000			Sofa	57500			Dining Table	11500	1 mark for each correct output.	1*3=3
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28	<pre>def SHOWWORD () :     c=0     file=open('STORY.TXT','r')     line = file.read()     word = line.split()     for w in word:         if len(w)&lt;5:             print( w)     file.close()  OR  def count H( ):     f = open ("para.txt" , "r" )     lines =0     L=f. readlines ( )     for i in L:         if i [0]== 'H':             lines +=1     print ("No. of lines are: " , lines)</pre>	(½ Mark for opening the file) (½ Mark for reading line and/or splitting) (½ Mark for checking condition) (½ Mark for printing word)	3																								
29	<pre>(i) UPDATE EMP SET Salary=Salary + Salary*0.10 WHERE Allowance IS NOT NULL;  (ii) SELECT Name, Salary + Allowance AS "Total Salary" FROM EMP;  (iii) DELETE FROM EMP WHERE Salary&gt;40000;</pre>	1 mark for each correct query	1*3=3																								

30	<pre> N=[12, 13, 34, 56, 21, 79, 98, 22, 35, 38] def PUSHEl(S,N):     S.append(N) def POPEl(S):     if S!=[]:         return S.pop()     else:         return None ST=[] for k in N:     if k%4==0:         PUSHEl(ST,k) while True:     if ST!=[]:         print(POPEl(ST),end=" ")     else:         break </pre>	1½ marks for each Push and Pop operation	3
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### SECTION D

31	<p>(i)</p> <p style="padding-left: 40px;">3</p> <p>(ii)</p> <p style="padding-left: 40px;">1</p> <p style="padding-left: 40px;">1</p> <p style="padding-left: 40px;">2</p> <p>(iii)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Dname</th> <th>Pname</th> </tr> </thead> <tbody> <tr> <td>PARESH</td> <td>Lal singh</td> </tr> <tr> <td>MANISH</td> <td>Arjun</td> </tr> <tr> <td>AKASH</td> <td>Narender</td> </tr> <tr> <td>KUMAR</td> <td>Mehul</td> </tr> <tr> <td>PARESH</td> <td>Naveen</td> </tr> <tr> <td>MANISH</td> <td>Amit</td> </tr> </tbody> </table> <p>(iv)</p> <p style="padding-left: 40px;">Manish</p>	Dname	Pname	PARESH	Lal singh	MANISH	Arjun	AKASH	Narender	KUMAR	Mehul	PARESH	Naveen	MANISH	Amit	1 mark for each correct output	1*4=4
Dname	Pname																
PARESH	Lal singh																
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KUMAR	Mehul																
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MANISH	Amit																

32	<pre> import csv def createcsv():     f=open("result.csv","w", newline="")     w=csv.writer(f)     w.writerow([1, 'Anil', 40, 34, 90, ""])     w.writerow([2, 'Sohan', 78, 34, 90, ""])     w.writerow([3, 'Kamal', 40, 45, 9, ""])     f.close()  import csv def copycsv():     f=open("result.csv","r")     f1=open("final.csv","w",newline="")     w1=csv.writer(f1)     r=csv.reader(f)     for x in r:         x[5]=int(x[2])+int(x[3])+int(x[4])         w1.writerow(x) f.close() f1.close() </pre>	<p>½ mark for accepting data correctly</p> <p>½ mark for opening and closing file</p> <p>½ mark for writing headings</p> <p>½ mark for writing row</p> <p>½ mark for opening and closing file</p> <p>½ mark for reader object</p> <p>½ mark for print heading</p> <p>½ mark for printing data</p>	4
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**SECTION E**

33	<p>(i) M/s Computer Solutions should install its server in finance block as it is having maximum number of computers.</p> <p>(ii) Any suitable layout</p> <p>(iii) Satellite Link.</p> <p>(iv) Switch.</p> <p>(v) LAN</p>	1 Mark of each correct answer	1*5=5
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34	<p>(i)</p> <p><b>rb+</b> Opens a file for both reading and writing in binary format. (+) the file pointer will be at the beginning of the file.</p> <p><b>wb+</b> Opens a file for both reading and writing in binary format. Overwrites the existing file if the file exists. If the file does not exist, creates a new file for reading or writing.</p> <p>(ii) def Readfile():  s=open( "Employee.dat" , "rb+")  try:  while True:  r=pickle.load(s)  if r[2]&gt;=20000 and r[2]&lt;=30000:  print(r)  except:  print("end of file")</p> <p style="text-align: center;">OR</p> <p>(i)</p> <p>In pickle module, dump () method is used to convert (pickling) Python objects for writing data in a binary file</p> <p>Whereas the load () function is used to read data from a binary file or file object.</p> <p>(ii)</p> <pre>import pickle as p L=[] with open('emp.dat','rb') as f:     L=p.load(f)     for r in L:         if r[2]&gt;5000:             print("name=",r[0])             print("designation=",r[1])             print("salary=",r[2])</pre> <p>Note: Any other correct logic may be marked</p>	<p>1 mark for <u>each correct</u> difference</p> <p>½ mark for correctly opening and closing files</p> <p>½ mark for correct loop</p> <p>½ mark for correct split</p> <p>1 mark for correctly reading / writing data</p> <p>½ mark for printing data</p>	2+3=5
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35	<p>(i) A table can only have one primary key, but it can have multiple candidate key in a database. (any suitable example)</p> <p>(ii)</p> <pre>import mysql.connector mydb=mysql.connector.connect(host="localhost",user="root",passwd="admin",database="SCHOOL") mycursor=mydb.cursor() while 1:     ch=int(input("enter -1 to exit / any other no to insert record into student table"))     if ch==-1:         break     eno=int(input("Enter Employee no"))     ename=input("Enter Employee Name")     edept=input("Enter dept name")     sal=int(input("Enter salary"))     mycursor.execute("insert into EMP values ('"+str(eno)+"','"+ ename+"','"+ edept +     "','"+str(sal)+"'")")     mydb.commit() for x in mycursor:     print(x)</pre> <p style="text-align: center;"><b>OR</b></p> <p>(i)</p> <p><b>Degree:</b> The total number of attributes which in the relation is called the degree of the relation.</p> <p><b>Cardinality:</b> Total number of rows present in the Table. (any suitable example)</p> <p>(ii)</p> <pre>import mysql.connector mydb=mysql.connector.connect(host="localhost",user="root",passwd="admin",database="SCHOOL") mycursor=mydb.cursor() mycursor.execute("alter table emp add (bonus int(3))") mycursor.execute("desc emp")  for x in mycursor:     print(x)</pre> <p style="text-align: center;">Note: Any other correct logic may be marked</p>	<p>½ mark for correct definition</p> <p>½ mark for correct example</p> <p>½ mark for importing correct module</p> <p>1 mark for correct connect()</p> <p>½ mark for correctly accepting the input</p> <p>1 ½ mark for correctly displaying data</p>	1+4=5
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